



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/825,620

04/16/2004

Kenichi Mukai

100689.53997US

7867

23911

7590

06/01/2006

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

SEVERSON, JEREMY R

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,620

Applicant(s)

MUKAI, KENICHI

Examiner

Jeremy R. Severson

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: JP 05162916, JP 62275943.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Re claim 1, the claimed elastic roller diameter is unclear. The portion of the claim that states "the diameter of said elastic roller is determined in the range between such first diameter as the peripheral velocity of said elastic roller at the part depressed due to the pressing of the elastic roller against the rigid roller without the copy sheet between the rollers coincides with the peripheral velocity of said rigid roller and such second diameter as the peripheral velocity of the rigid roller assumed to have a diameter increased by the thickness of the copy sheet (rigid roller with increased diameter) coincides with the peripheral velocity of the elastic roller at the part depressed due to the pressing of the elastic roller against said rigid roller with increased diameter without the copy sheet between the rollers" is not clear. For the purpose of expediting prosecution, the claim will be examined in this action as best understood by the Examiner.

4. Re the parenthetical statement in claim 1, "(rigid roller with increased diameter)," it is unclear whether the parenthetical statement is meant to be positively recited in the claim.

5. The term "about mid-value" in claim 2 is a relative term which renders the claim indefinite. The term "about mid-value" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear what range of values of the medial design value of the diameter of the elastic roller is claimed.

6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 3 recites the broad recitation Hs65 to 90, and the claim also recites Hs70 to 90 which is the narrower statement of the range/limitation. For the purpose of expediting prosecution, the claim will be read as if the broader statement is the range claimed.

7. Re claim 4, the process of "correction" is not explained anywhere in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Holtman (US 4,460,409) ("Holtman").

10. Re claim 1, Holtman discloses an image forming apparatus (col. 2, line 41) having a pair of rollers (24, 26) for transferring a copy sheet pinching it between the rollers, wherein said pair of rollers consists of a rigid roller (24) and an elastic roller (26) pressed against said rigid roller, the rollers being connected to a driving mechanism composed so that the peripheral velocities of both the rollers are approximately equal (col. 1, line 55 - col. 2, line 10), and the diameter of said elastic roller is determined in the range between such first diameter as the peripheral velocity of said elastic roller at the part depressed due to the pressing of the elastic roller against the rigid roller without the copy sheet between the rollers coincides with the peripheral velocity of said rigid roller and such second diameter as the peripheral velocity of the rigid roller assumed to have a diameter increased by the thickness of the copy sheet (rigid roller with increased diameter) coincides with the peripheral velocity of the elastic roller at the part depressed due to the pressing of the elastic roller against said rigid roller with increased diameter without the copy sheet between the rollers (col. 2, lines 15-26).

11. Re claim 2, Holtman discloses the image forming apparatus according to claim 1, wherein the medial design value of the diameter of said elastic roller is determined to be about mid-value between said first and second diameter. Because of the fact that in Holtman, the peripheral velocity is independent of roller diameter (col. 2, lines 15-26), said first and second diameters are equal, and therefore the mid-value diameter is equal to the said first and second diameters.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holtman in view of Saito et al. (US 5,934,663) ("Saito").

14. Re claim 3, Holtman discloses the image forming apparatus according to claim 1 or 2, wherein said elastic roller is a roller having rubber (Holtman, col. 1, line 36).

Holtman lacks the specific disclosure of the rubber in the range of JIS-A Hs65 to 90.

Saito teaches the use of rubber rollers in that range, in cases of high-speed carrying of 50 cm/s or carrying for printing on ruled line sheets (Saito, col. 4, lines 25-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use rubber in the range of JIS-A Hs65 to 90 as taught by Saito to the device of Holtman in order to facilitate high-speed carrying of 50 cm/s or carrying for printing on ruled line sheets.

Conclusion

15. Claim 4 cannot be meaningfully treated with respect to the prior art because of its indefiniteness.

Any references not explicitly discussed above but made of record are considered relevant to the prosecution of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Severson whose telephone number is (571) 272-2209. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis, can be reached at (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRS



**KATHY MATECKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600**